

REMARKS

Reconsideration of the present application in view of the above amendments and the following remarks is respectfully requested.

Once again, the Examiner's allowance of claims 1-4, 7-10, 21 and 22 is noted and appreciated.

The Examiner has rejected claims 19, 20, 23 and 24 under 35 U.S.C. 103(a) as being obvious in view of the combination of U.S. Patent No. 5,500,549 to Takeuchi ("Takeuchi") and U.S. Patent No. 6,151,966 to Sakai ("Sakai '966"). This rejection is respectfully traversed.

Claim 19 has been amended to recite, *inter alia*, a semiconductor dynamic quantity sensor comprising, *inter alia*

a movable electrode having a detection surface and being supported above the opening in a displacement direction by an first and second movable electrode anchor portion that is portions that are respectively anchored via the insulation layer to at least one of the first frame part and the second frame part, the movable electrode being displaceable in the displacement direction in response to a dynamic quantity applied thereto; ~~and~~

a movable electrode pad located on at least one of the first and second frame parts and being in electrical communication with the movable electrode;

~~a fixed electrode~~ a pair of fixed electrodes each fixed on the frame member via the insulation layer and each having a detection surface facing the detection surface of the movable electrode while defining a detection interval that is changed to detect the dynamic quantity when the movable electrode is displaced by the dynamic quantity; and

a pair of fixed electrode pads located adjacent the movable electrode pad on only one of the first and second frame parts and each being in electrical communication with one of the pair of fixed electrodes...

The configuration of the sensor of the present invention as recited in amended claim 19 and shown in either of Figs. 3 and 9A is patentable in view of the combination of Takeuchi and

Sakai '966. This is because, according to sensor configurations taught by the art of record and as shown, for example, in Fig. 1A of the present application, the side of the substrate including the electrode pads for both the movable electrode and the fixed electrodes is wider than the opposite side to accommodate the various electronic components connected to the sensor and the corresponding component connections. As previously discussed, the non-uniform widths of the first and second frame parts in the movable electrode displacement direction create non-uniform changes in detection intervals due to thermal expansion and contraction.

The structures of the sensors described in Takeuchi and Sakai '966 differ from the present invention as recited in claim 19. Specifically, the primary reference Takeuchi does not teach or suggest the configuration claimed in amended claim 19 and shown in either of Figs. 3 and 9A because the sensor in Takeuchi is designed with temperature distortion compensation not being taken into consideration. For example, Fig. 4 of Takeuchi shows only movable electrode anchor portions 121-124 with no detail as to movable or fixed electrode pad placement, while Fig. 10 shows fixed electrode pads being located on both sides of the substrate 11. Sakai '966 clearly describes sensor configurations in which one frame part is significantly larger than an opposing frame part in order to accommodate fixed and movable electrode pads as well as various electrical components and component connections. See, for example, Figs. 1, 18 and 20 of Sakai '966. Therefore, not only does the combination of Takeuchi and Sakai '966 fail to teach or suggest the sensor as recited in claim 19, but the cited combination actually teaches away from the claimed sensor of the present invention.

Therefore, in view of the above structural differences between the sensor recited in amended claim 19 and the sensors disclosed in Takeuchi and Sakai '966, and in view of the lack of teaching or suggestion in the combination of Takeuchi and Sakai '966 of the features recited in amended claim 19, the Examiner has failed to establish a *prima facie* case of obviousness.

Therefore, it is respectfully requested that the Examiner's rejection of claim 19, as well as claims 20 and 23-24 that depend therefrom, be withdrawn.

The Examiner should note that claim 25 has been added to further distinguish the present invention over the art of record. Support for this new claim may be found, for example, on page 9, line 12 of the present application. It should be noted that the rectangular shaped beam portions (or folded/U-turn shaped beam portions) of the present invention differ from corresponding beam portions in Takeuchi, as the rectangular shaped beam portions are folded in 180° turns, whereas the corresponding beam portions in Takeuchi are folded in 90° turns.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the Examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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